DOCUMENT RESUME

ED 348 333 SP 033 307

AUTHOR Sova, Ruth
TITLE Aquatic Equipment Information.
PUB DATE 90
NOTE 5p.
PUB TYPE Guides - General (050)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Adults; Aquatic Sports; *Athletic Equipment; *Equipment Evaluation; *Exercise; Physical Education; Physical Health; *Water

ABSTRACT

Equipment usually used in water exercise programs is designed for variety, intensity, and program necessity. This guide discusses aquatic equipment under the following headings: (1) equipment design; (2) equipment principles; (3) precautions and contraindications; (4) population contraindications; and (5) choosing equipment. Equipment is used initially to add variety to the aquatic exercise program and later to increase intensity of the training program or for aerobic exercise. Equipment is based on one or more of three basic principles: buoyancy, weight, or resistance. Regardless of type of equipment, certain precautionary guidelines are to be followed: progressive overload; begin slowly; attain muscle balance; keep joints slightly flexed; keep the equipment in the water; stretch muscles at the end of the session; move toward and away from the body center; always place, not fling, the piece of equipment; use equipment only after warming up; use full range of motion; know where the equipment is going; and use proper alignment. Those using equipment should not have medical contraindications. Considerations on choosing equipment have to do with its purpose, participants, and such items as cost, ease of storage, resistance to mildew. (AMH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

☐ This document has been reproduced as received from the person or organization originating it.

☐ Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

R Sova

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

ED348333

Ruth Sova
Aquatic Exercise Association
P.O.Box 497
Port Washington, WI 53074
414-284-3416

AQUATIC EQUIPMENT INFORMATION

To have a successful, effective water exercise program, one needs water and a well-designed program. Anything else that's added or offered is merely an extra enhancement.

Equipment is usually used and designed for one of the following purposes: variety, intensity and program necessity.

EQUIPMENT DESIGN

Equipment is used most frequently to add variety to the aquatic exercise program. Exercisers who have become complacent often are excited by the thought of using webbed gloves or wrist weights. Simply by adding variety, they will become more aware of the muscles that are being used and how to "place" the limbs.

After students have adapted to the aquatic exercise regimen, they may want to add equipment to increase the intensity of their training program. Equipment can be used during the aerobic section, or during the toning or strength training portion of the class.

Therapeutic aquatic programs, deep water and weight training are all programs that require equipment. The programs that require equipment as part of the program do not need to follow the guidelines listed below regarding equipment, unless they are also used to increase intensity.

EQUIPMENT PRINCIPLES

All equipment is based on one or more of the three basic principles: buoyancy, weight or resistance. Unless the equipment is designed for therapeutic use or to keep a person buoyant in deep water, it is all designed to inhibit movement (resistance), increase the weight (weights) or increase the force needed for the movement (buoyant) and thereby increase the intensity. Weights will increase the impact, muscular endurance and muscular strength. Buoyant equipment will usually lessen the impact and increase the muscular strength and endurance. Resistant equipment does not affect impact but will increase muscular endurance and strength.

SP 033 307

BEST COPY AVAILABLE

PRECAUTIONS AND CONTRAINDICATIONS

All exercisers using any type of equipment should follow specific guidelines regardless of the type of principles the equipment uses.

1. Progressive Overload: When adding equipment, gradual overload should be used in terms of intensity, frequency and duration. The intensity can be increased by using any of the water principles discussed in chapter four or by beginning with a "light" piece of equipment and gradually progressing to a heavy piece. An example would be beginning with webbed gloves, progressing then to frisbees, and after adaptation occurs, progressing to Aquatoner. In terms of duration, equipment should be added only for 5 to 10 minutes during the first day of use. As students adapt to the equipment, time use can be increased. In the beginning, the equipment should be used only once or twice a week. Participants can gradually increase the frequency as adaptation occurs.

2. Begin Slowly: Each time the equipment is used, participants should begin slowly and gradually add more forceful movements. They should also begin using short levers and gradually progress to longer levers, more intense moves. Short levers should also be used for faster movements and long levers reserved for slower movements. Using long levers quickly can damage the soft tissue around the joint.

3. Muscle Balance: Work the muscles on each side of the joint equally. The agonist and antagonistic muscles should be used to assure muscle balance during the workout. In order to ensure that muscle balance is occurring, the exerciser should apply equal force in both directions of the movement.

4. Keep Joints "Soft": Full extensions in the knees, shoulders, elbows and wrists should be eliminated. Knees, elbows and wrists should always be "soft" or slightly flexed to prevent injury.

5. Keep the Equipment in the Water: Moves using aquatic exercise equipment should be accomplished completely in the water. Eliminate in and out of the water types of moves as they can severely compromise the joints and muscles.

6. Stretch What You Strengthen: While flexibility is important in all types of programs, stretching is even more vital when equipment is used. Any muscles that are used with equipment should be stretched at the end of the program.

7. Move Toward and Away From the Body Center: To reduce strain on ligaments and tendons in the shoulders, elbows, knees and hips, moves such as bicep curls or side kicks that move toward and away from the body center should be used. Extensive movements on the periphery of the body such as arm circles or leg circles could cause strain.

8. Always "Place" the Piece of Equipment: Participants will sometimes fling the equipment, especially if the movement is performed too quickly. Students should visualize where the piece of equipment is going to end at the end of the move and "place" it there.

9. Use Equipment Only After the Warmup: Allow the body to warm up the muscles, to get oxygenated blood and the joints to be lubricated before adding equipment.

10. Use Full Range of Motion: Participants often cut the movement short when they tire. If the movement is not brought back to beginning position, it will result in ineffective work and muscle shortening.

11. Know Where the Equipment is Going: If the equipment is hand held, participants should keep a firm grip on the equipment so it stays with them. With most equipment there is the possibility of hitting other body parts while using the equipment. Students should be cautioned regarding this and always know where the equipment is going.

12. Use Proper Alignment: Alignment is important in all programs and even more important when using equipment. Improper use of equipment can easily cause injuries to students. Exercisers should have complete control over the movements they are making with the equipment.

POPULATION CONTRAINDICATIONS

Without a medical professional's guidance some types of special populations should not use equipment. Participants with high blood pressure, heart disease, arthritis or other joint problems should not use equipment. Participants with back or knee problems or pregnant women should have medical approval before attempting to use equipment that will increase the intensity of the program.

CHOOSING EQUIPMENT

When choosing aquatic exercise equipment, instructors should try to match the type of equipment to the purpose and the participant. In addition to those considerations, the cost, ease of storage or transport, durability, safety and resistance to mold and mildew should all be considered. If there are non swimmers in the program,

equipment should be safe for swimmers and non swimmers alike. Equipment should be well constructed, with no edges that will cut, chafe or irritate. The equipment should not affect the user's center of buoyancy leaving the user feeling unstable in the water. Instructors should match the participant's level of conditioning to the type of equipment used. The participant's degree of coordination should also be considered when choosing equipment. In terms of liability, equipment that is created expressly for the purpose of aquatic exercise and used in the manner for which it was designed, is the safest.

Understanding the principle the equipment capitalizes on, the part of the body where it is used, how it attaches, the segment of the class it will be used for, whether it was created for aquatics, swimming or fitness, what water depth it will be used in, what its cost is and what the precautions and benefits are will important in choosing the proper equipment for the purpose intended.